

## Section II

### RIGGING FARE IN AN M101A1, 3/4-TON TRAILER

#### 6-18. Description of Load

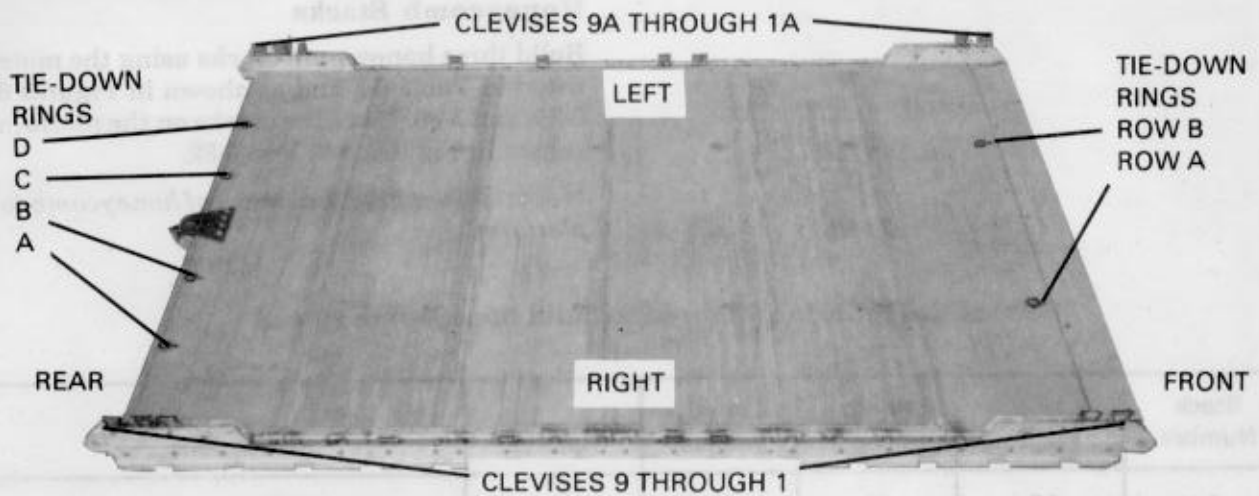
The FARE, weighing 860 pounds, is stowed as an accompanying load in the M101, M101A, or M101A1, 3/4-ton trailer. This load is rigged for low-velocity airdrop on a 12-foot, type V platform. One G-11A or one G-11B cargo parachute is used for this load. The height of the trailer is 83 inches, reducible to 51 inches. It is 71 inches wide and 147 inches long. The trailer may have an additional 640 pounds stowed in it.

#### 6-19. Preparing Platform

Prepare a 12-foot, type V airdrop platform using four tandem links and 18 tie-down clevises as shown in Figure 6-27.

**Notes:**

- 1. The nose bumper may or may not be installed.*
- 2. Measurements given in this section are from the front edge of the platform, NOT from the front edge of the nose bumper.*



Step:

1. Inspect, or assemble and inspect, the platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
3. Install a tandem link on the rear of each side rail using holes 22, 23, and 24.
4. Install a tie-down clevis to bushings 1 and 2 on each front tandem link.
5. Starting at the front of each platform side rail, install a tie-down clevis to the bushings bolted to holes 10, 11, 15, and 18.
6. Install a tie-down clevis to bushings 2, 3, and 4 on each rear tandem link.
7. Starting at the front of the platform, number the clevises bolted to the right side from 1 through 9 and those bolted to the left side from 1A through 9A.
8. Starting at the front of the platform, number the two tie-down rings in the first five panels A and B from right to left. Label the four tie-down rings in the last panel A, B, C, and D from right to left. Starting with the first panel, number the tie-down rings 1 through 6.

Figure 6-27. Platform prepared

### 6-20. Building and Placing Honeycomb Stacks

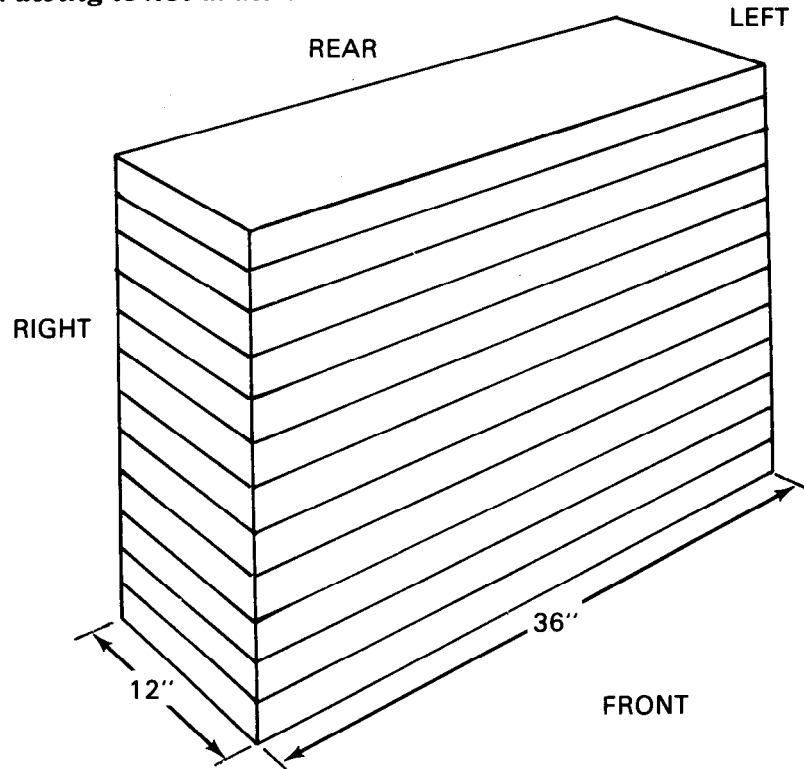
Build three honeycomb stacks using the material listed in Table 6-3 and as shown in Figures 6-28, 6-29, and 6-30. Place the stacks on the platform as shown in Figures 6-31 and 6-32.

**Note:** Do not glue the stacks of honeycomb to the platform.

**Table 6-3. Material required to build honeycomb stacks**

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	12	36	12	Honeycomb	See Figure 6-28.
2	7	36	12	Honeycomb	See Figure 6-29.
	4	12	12	Honeycomb	
3	8	12	32	Honeycomb	See Figure 6-30.
	1	36	12	Honeycomb	
	1	48	12	Honeycomb	
	14	12	32	Honeycomb	

**Note:** *This drawing is not drawn to scale.*

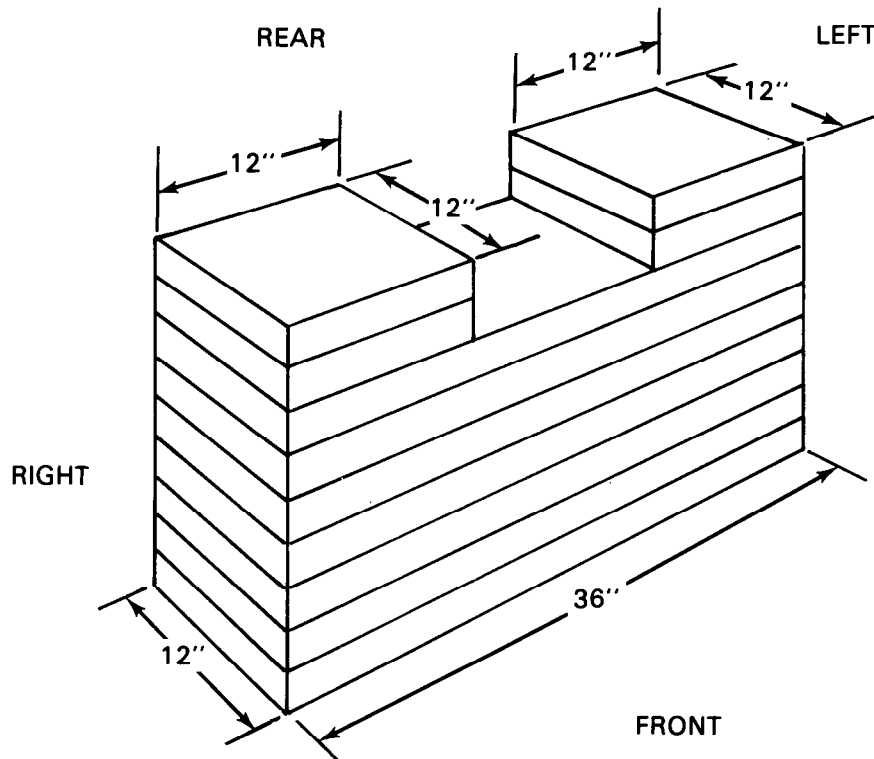


Step:

1. Place twelve 36- by 12-inch pieces of honeycomb to form a stack.

*Figure 6-28. Stack 1 prepared*

**Note:** *This drawing is not drawn to scale.*

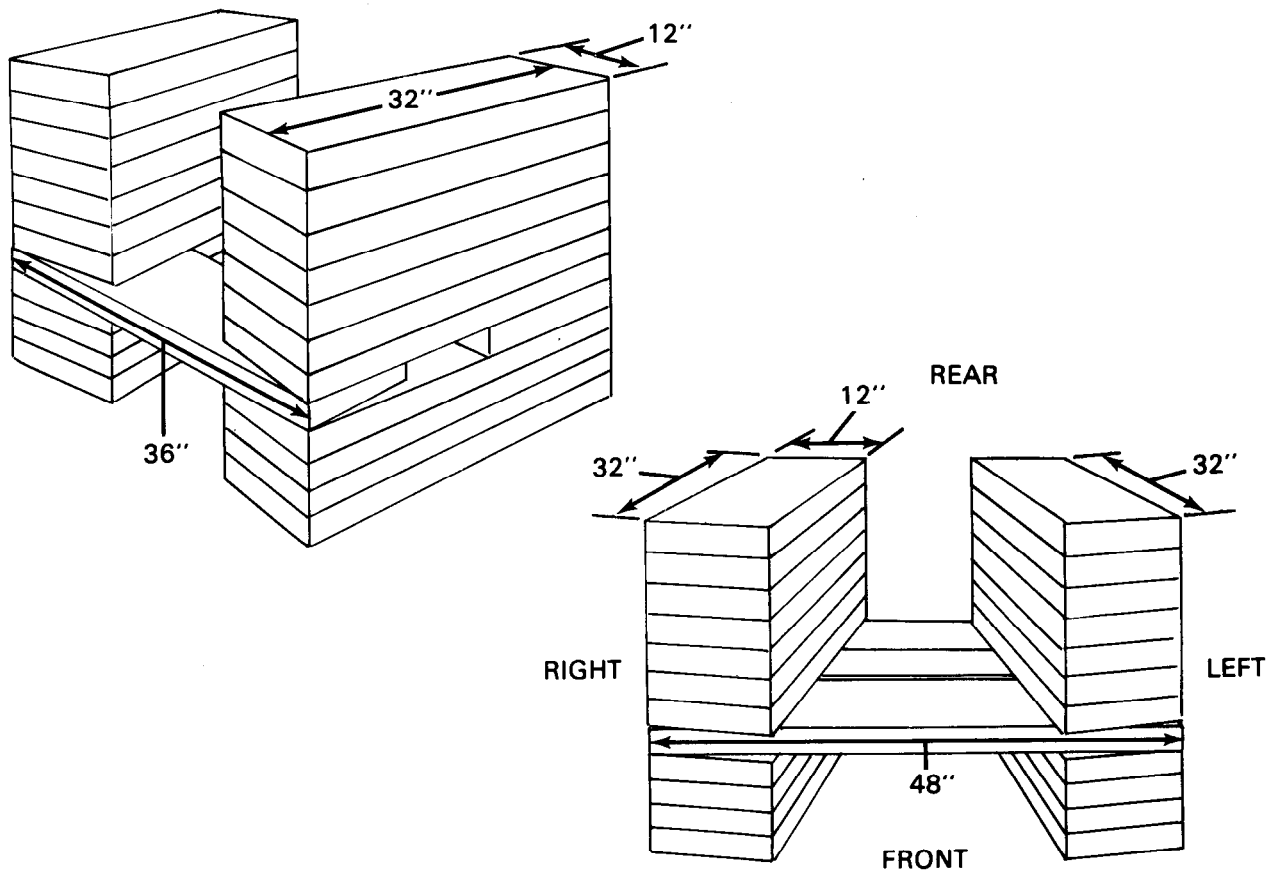


**Step:**

1. Form a base using seven pieces of 36- by 12-inch honeycomb.
2. Place two pieces of 12- by 12-inch honeycomb flush with each side of the base.

*Figure 6-29. Stack 2 prepared*

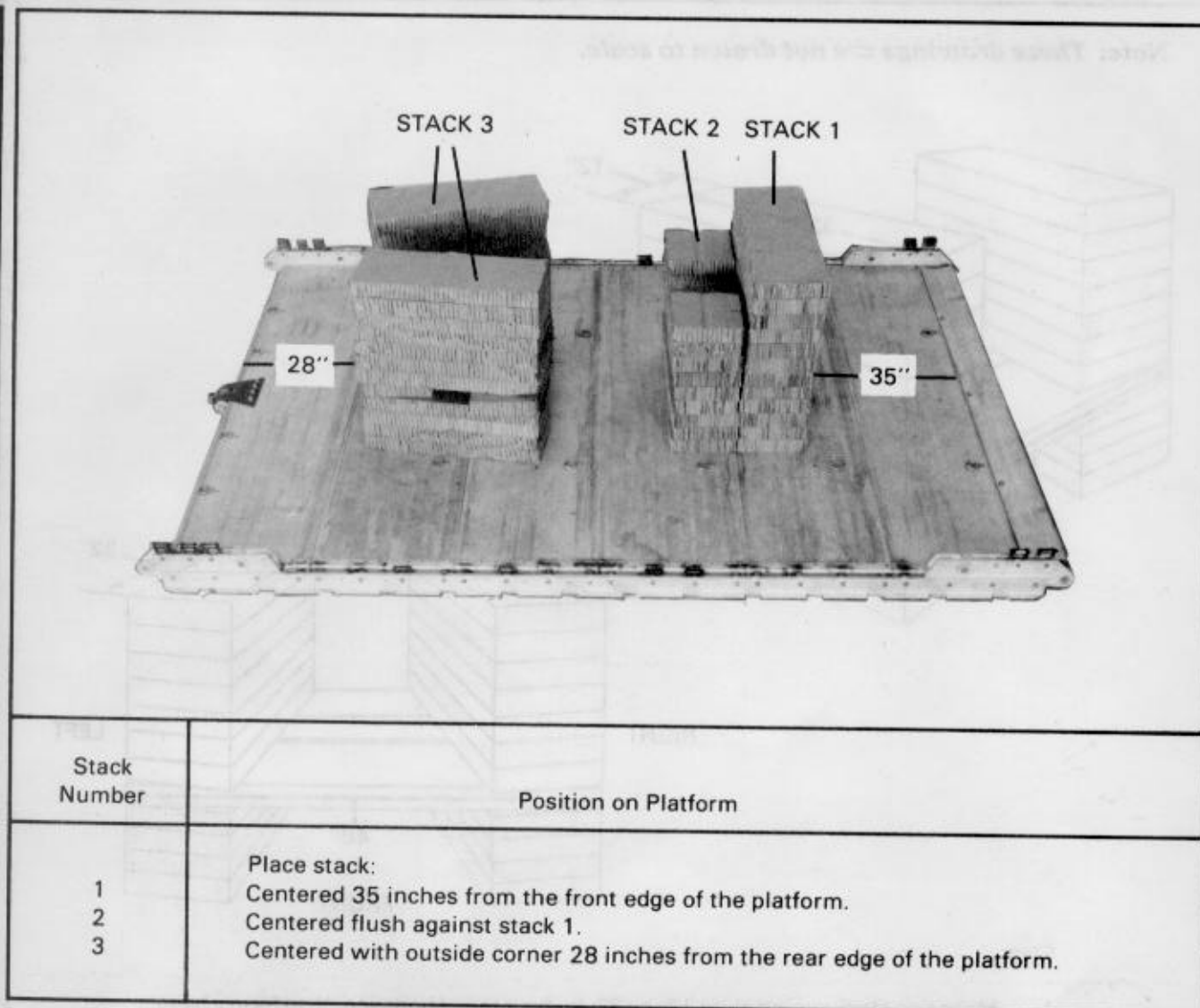
**Note:** *These drawings are not drawn to scale.*



**Step:**

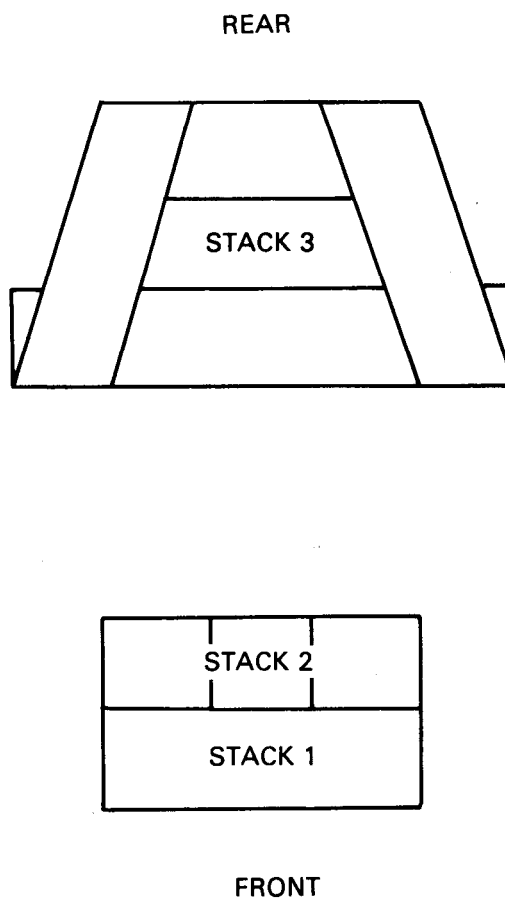
1. Make two stacks using eight 12- by 32-inch pieces of honeycomb to form a base.
2. Angle the base stacks so that the rear inside edges are 12 inches apart, and the front inside edges are 24 inches apart.
3. Form a bridge by placing a 36- by 12-inch piece of honeycomb on top of the base stacks so that the outside edges are aligned with the rear of the base stacks.
4. Place a 48- by 12-inch piece of honeycomb on top of the base stacks so that the outside edges are aligned with the front of the base stacks.
5. Make two stacks using fourteen 12- by 32-inch pieces of honeycomb. Place each stack on the bridge and flush with the base stack.

*Figure 6-30. Stack 3 prepared*



*Figure 6-31. Honeycomb stacks placed on platform*

**Note:** *These drawings are not drawn to scale.*



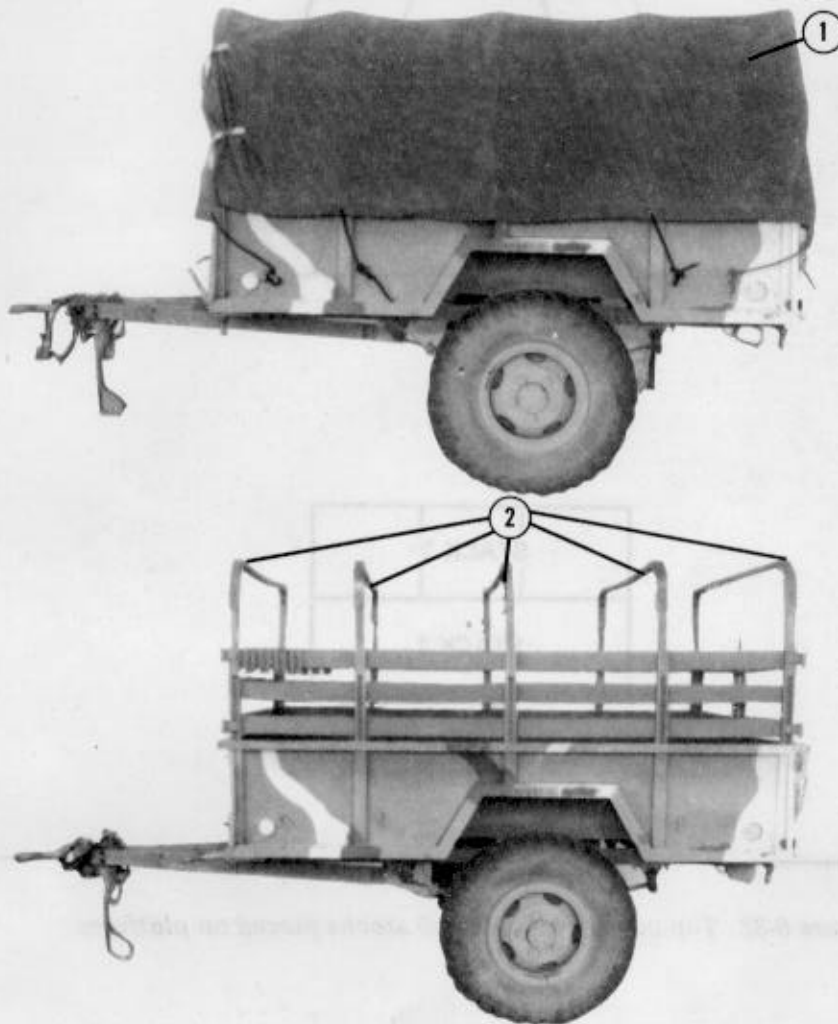
*Figure 6-32. Top view of honeycomb stacks placed on platform*



### 6-21. Preparing Trailer

Prepare the trailer as described below.

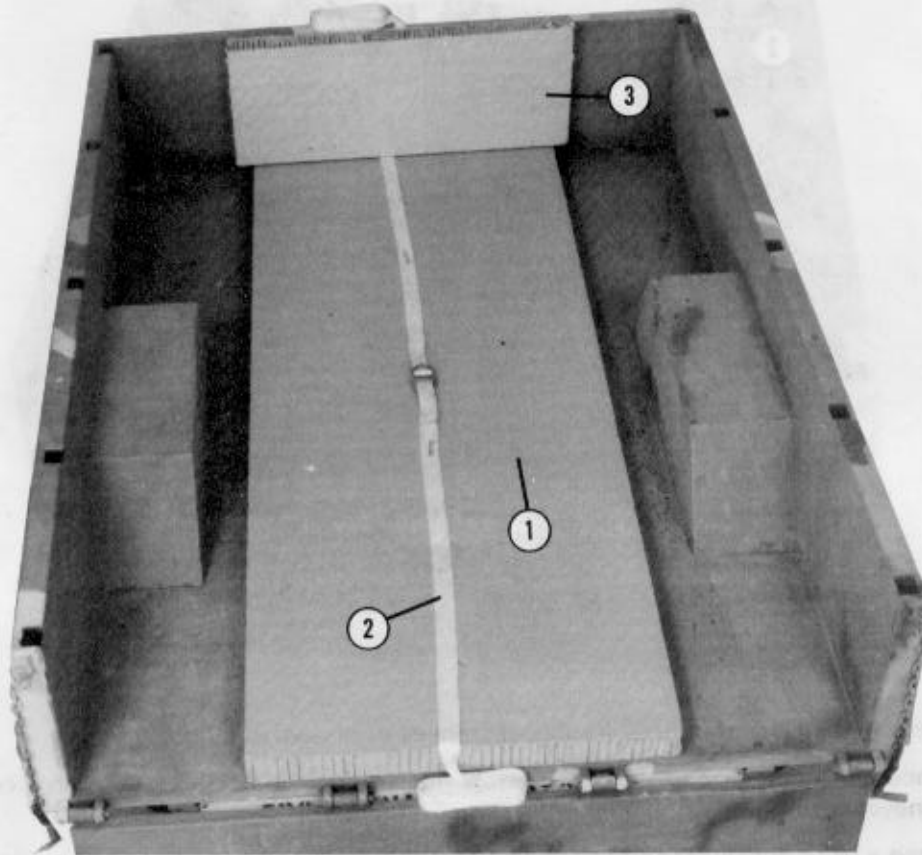
a. *Removing Components.* Remove the components from the trailer as shown in Figure 6-33.



- ① See TM 9-2330-202-14&P for the removal of the trailer components (not shown). Remove the tarpaulin from the trailer, and place it aside for later use.
- ② Remove the bows from the side racks, then remove the side racks from the trailer. Place these items aside to be placed in the trailer later.

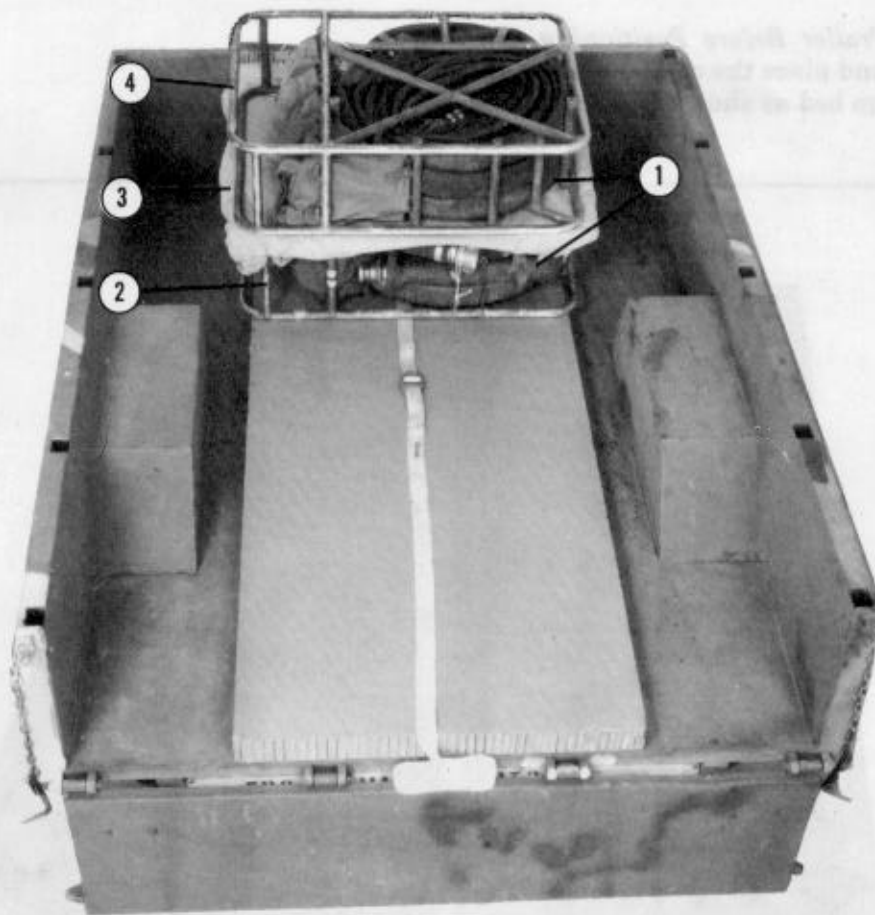
Figure 6-33. Trailer components removed

*b. Preparing Trailer Before Positioning.* Prepare the trailer, and place the components of the FARE in the cargo bed as shown in Figures 6-34 through 6-42.



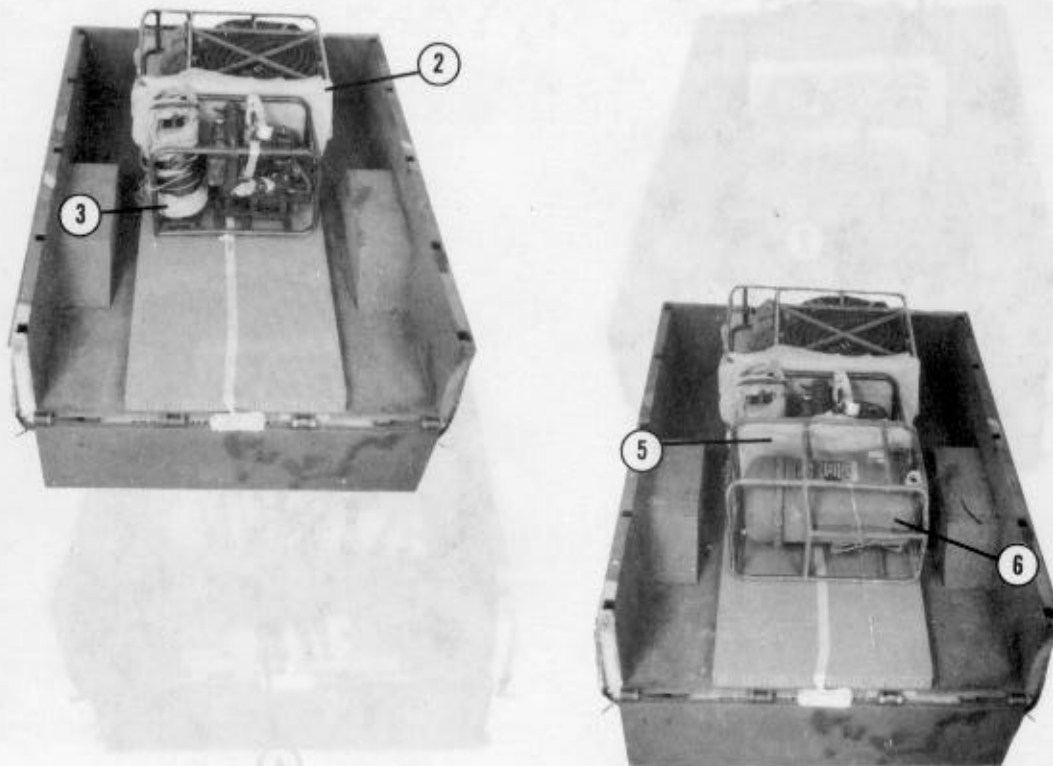
- ① Center a 36- by 96-inch piece of honeycomb in the trailer cargo bed.
- ② Form a 30-foot lashing. Center the lashing on the honeycomb.
- ③ Center a 18- by 36-inch piece of honeycomb against the front wall of the cargo bed.

*Figure 6-34. Honeycomb placed in cargo bed*



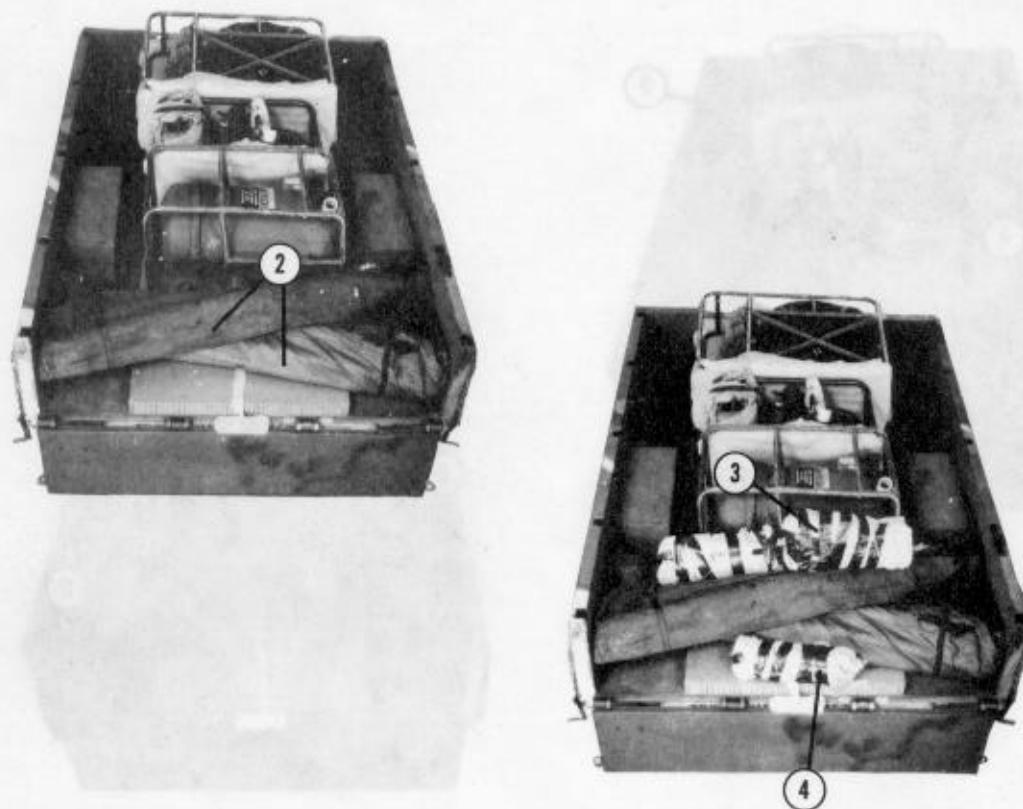
- ① Prepare the discharge hose frame assemblies as shown in Figure 6-7.
- ② Place a discharge hose frame assembly flush against the 18- by 36-inch piece of honeycomb.
- ③ Place a layer of cellulose wadding on top of the discharge hose frame assembly.
- ④ Place another discharge hose frame assembly on top of the cellulose wadding and flush against the 18- by 36-inch piece of honeycomb.

*Figure 6-35. Discharge hose frame assemblies placed on honeycomb*



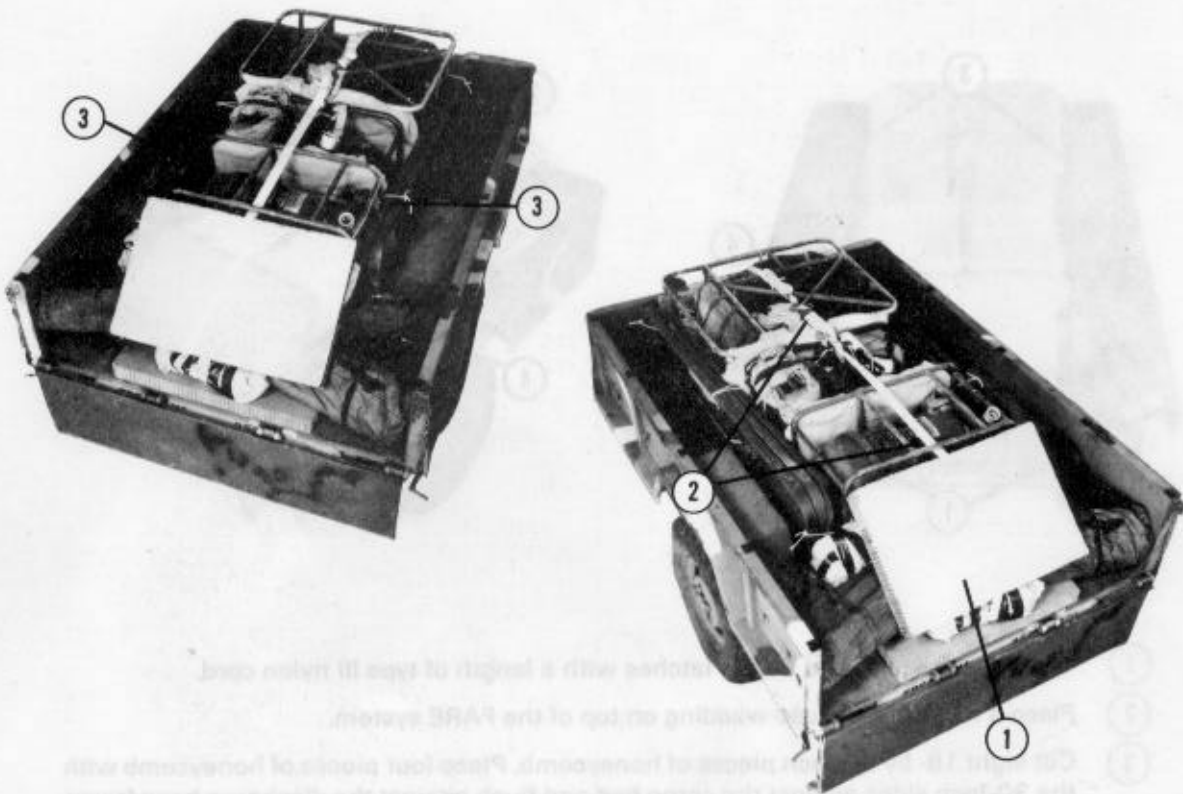
- ① Prepare the pump/engine assembly (not shown) according to Figure 6-9.
- ② Place a layer of cellulose wadding against the discharge hose frame assembly.
- ③ Place the pump/engine assembly flush against the discharge hose frame assembly.
- ④ Prepare the filter/separator assembly (not shown) according to Figure 6-8.
- ⑤ Place a layer of cellulose wadding against the pump/engine assembly.
- ⑥ Place the filter/separator assembly flush against the pump/engine assembly.

*Figure 6-36. Pump/engine and filter/separator assemblies placed on honeycomb*



- ① Prepare the components of the grounding rods and suction hose kits (not shown) according to Figure 6-12.
- ② Place two kits across each other next to the filter/separator assembly.
- ③ Wrap two fire extinguishers in cellulose wadding, and place them on top of the suction hose kits. Tie the fire extinguishers to the frame of the filter/separator with a length of type III nylon cord.
- ④ Wrap a fire extinguisher in cellulose wadding. Place it on the honeycomb behind the suction hose kits.

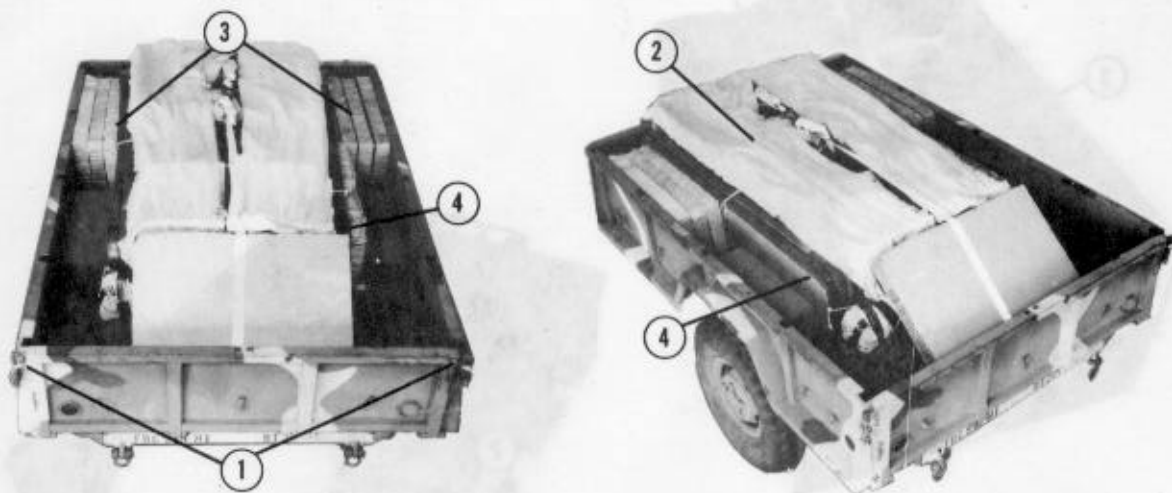
Figure 6-37. Ground rods, suction hose kits, and fire extinguishers placed on honeycomb



- ① Cover the fire extinguishers with a 24- by 36-inch piece of honeycomb.
- ② Pass one end of the pre-positioned lashing over the honeycomb, under one bar of the filter/separator frame, and over the pump/engine assembly frame. Pass the other end of the lashing through the discharge hose frame assembly. Bind the ends with D-rings and a load binder.
- ③ Set two bows on the right side and two on the left side of the trailer. Use a length of type III nylon cord to tie the bows in place to the filter/separator frame, the pump/engine assembly frame, and the discharge hose frame.

*Figure 6-38. Lashing secured and bows tied in place*



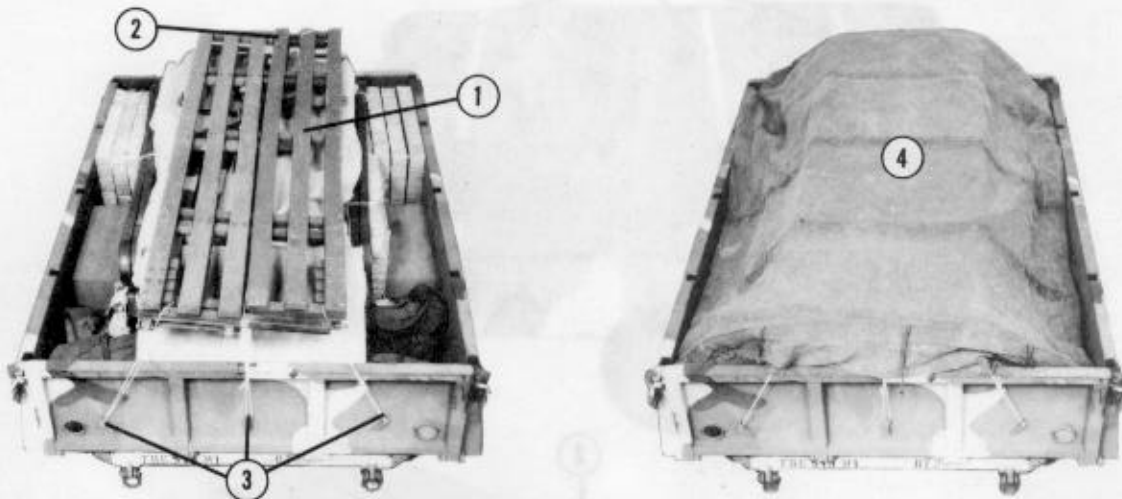


- ① Close the tailgate, and tie the latches with a length of type III nylon cord.
- ② Place a layer of cellulose wadding on top of the FARE system.
- ③ Cut eight 18- by 30-inch pieces of honeycomb. Place four pieces of honeycomb with the 30-inch sides against the cargo bed and flush against the discharge hose frame assemblies.

**Note:** *The fourth piece of honeycomb is not seen since it is placed under the right or left set of bows against the discharge hose frame assemblies.*

- ④ Cut two 18- by 30-inch pieces of honeycomb. Place one piece of honeycomb with the 30-inch side against the cargo bed and between the wheel well and filter/separator frame. Repeat for the other side.

*Figure 6-39. Tailgate secured and filler honeycomb placed in cargo bed*



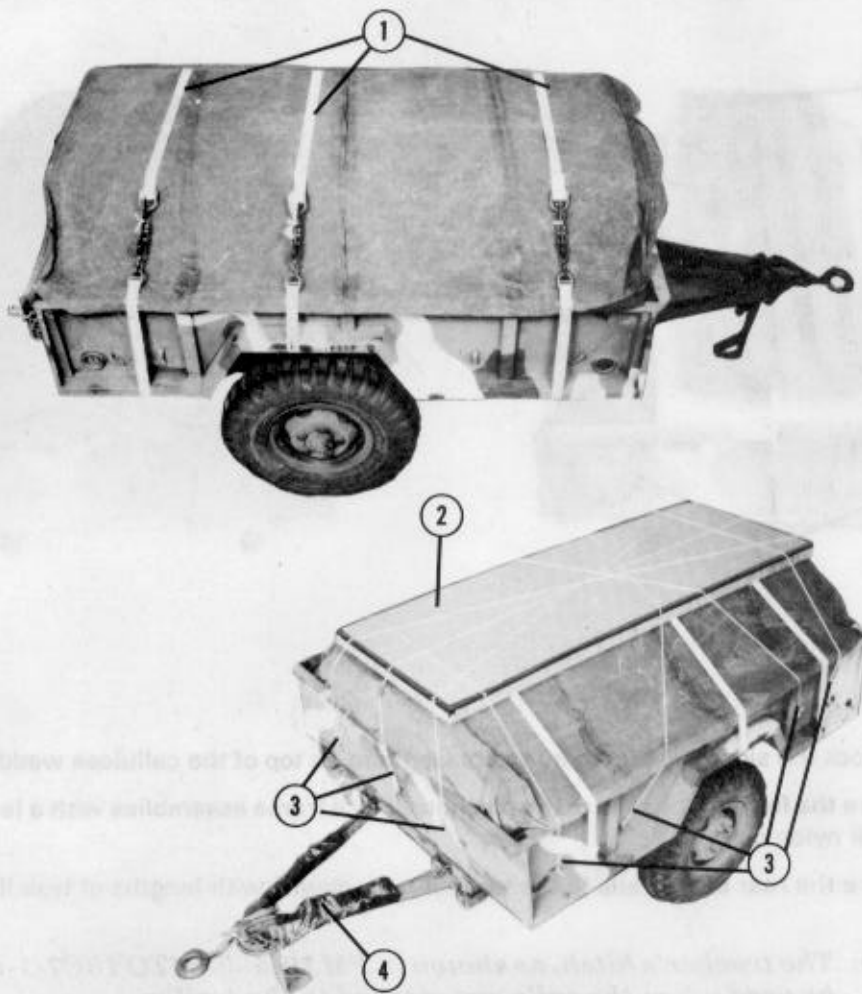
- ① Interlock the side rails together, and place them on top of the cellulose wadding.
- ② Secure the front of the rails to the discharge hose frame assemblies with a length of type III nylon cord.
- ③ Secure the rear of the rails to the tarpaulin tie-downs with lengths of type III nylon cord.

**Note:** *The trucker's hitch, as shown in FM 10-500-2/TO 13C7-1-5, will be used when the rails are secured to the trailer.*

- ④ Cover the FARE components with the trailer tarpaulin.

*Figure 6-40. Side rails and tarpaulin secured to trailer*



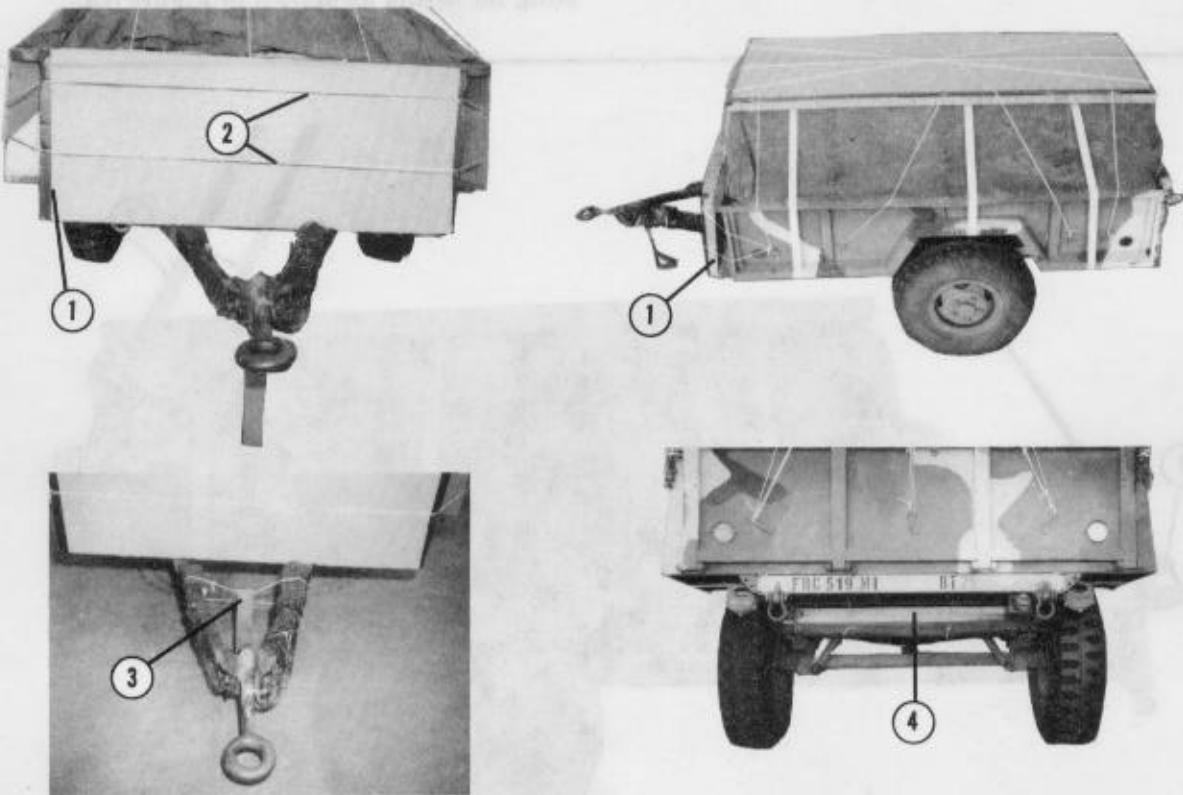


- ① Pass a 15-foot lashing around the body and frame of the front, center, and rear of the trailer. Secure the ends on the right side of the trailer with D-rings and load binders.
- ② Tape the edges of a 36- by 96-inch piece of honeycomb with cloth-backed tape. Center the honeycomb on top of the tarpaulin.
- ③ Secure the honeycomb in place with lengths of type III nylon cord. Tie the ends of the nylon cord to the tarpaulin tie-downs.
- ④ Secure the safety chains and intervehicular cable to the drawbar frame with cloth-backed tape.

*Figure 6-41. FARE lashed to trailer and chains secured*

**CAUTION**

The brake must be in the OFF position before the honeycomb can be installed.

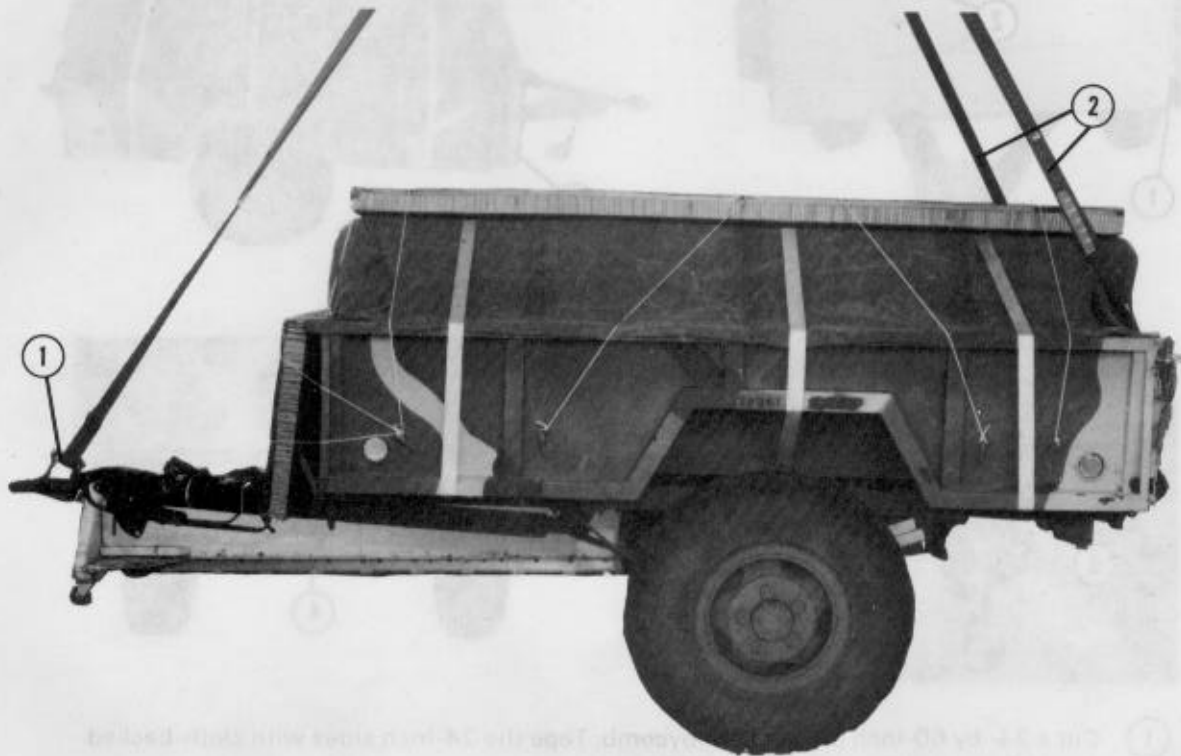


- ① Cut a 24- by 60-inch piece of honeycomb. Tape the 24-inch sides with cloth-backed tape. Place the honeycomb on the drawbar.
- ② Secure the honeycomb in place with two lengths of type III nylon cord. Tie the ends of the nylon cord to the tarpaulin tie-downs.
- ③ Secure the support stand in the UP position with a length of type III nylon cord. Make sure the locking pin is in the LOCK position.
- ④ Place two 2- by 12- by 46-inch pieces of lumber between the leaf springs and frame and against the shackle bolts. Tie the lumber to the frame with two lengths of type III nylon cord.

*Figure 6-42. Support stand and leaf springs secured*

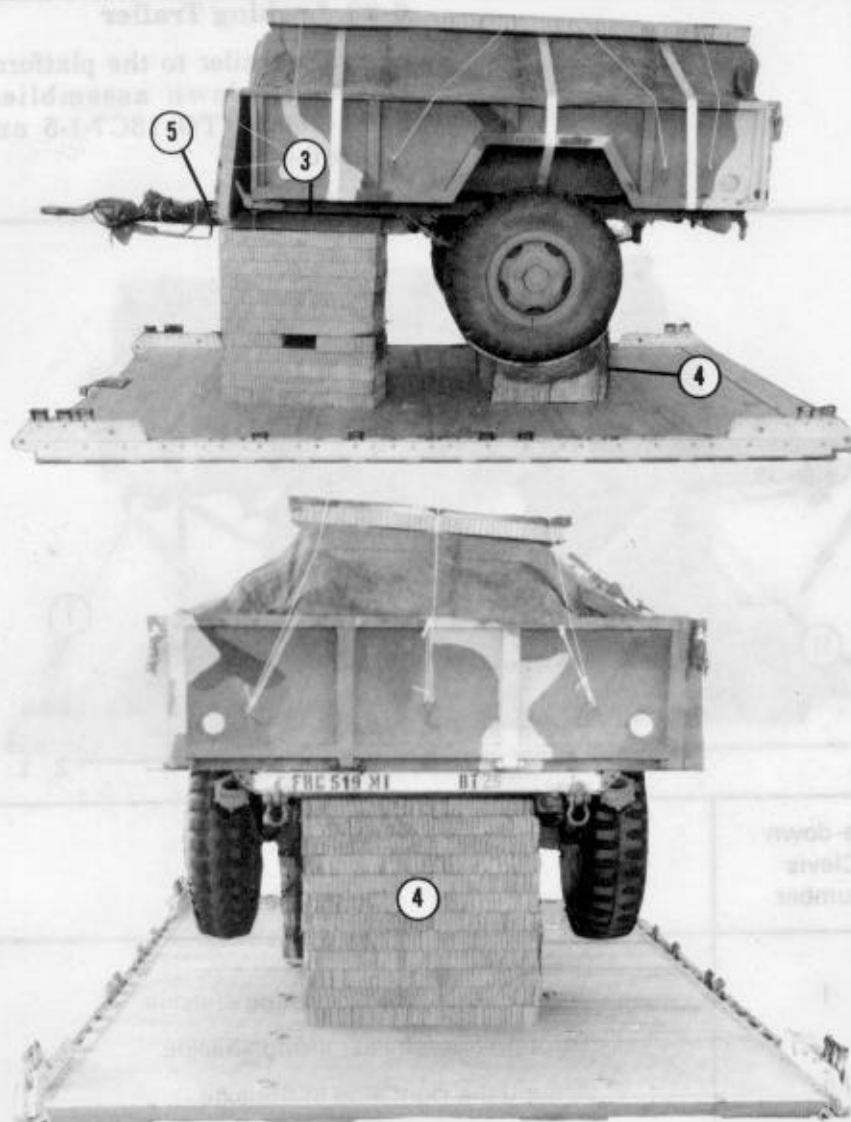
### 6-22. Positioning Trailer

Position the trailer on the honeycomb stacks using three medium suspension clevises; two 11-foot (2-loop), type XXVI nylon webbing slings; and one 12-foot (2-loop), type XXVI nylon webbing sling for lifting as shown in Figure 6-43.



- ① Bolt a 12-foot (2-loop), type XXVI nylon webbing sling to the lunette with a medium clevis.
- ② Bolt an 11-foot (2-loop), type XXVI nylon webbing sling to each rear lifting provision with a medium clevis.

*Figure 6-43. Trailer positioned*

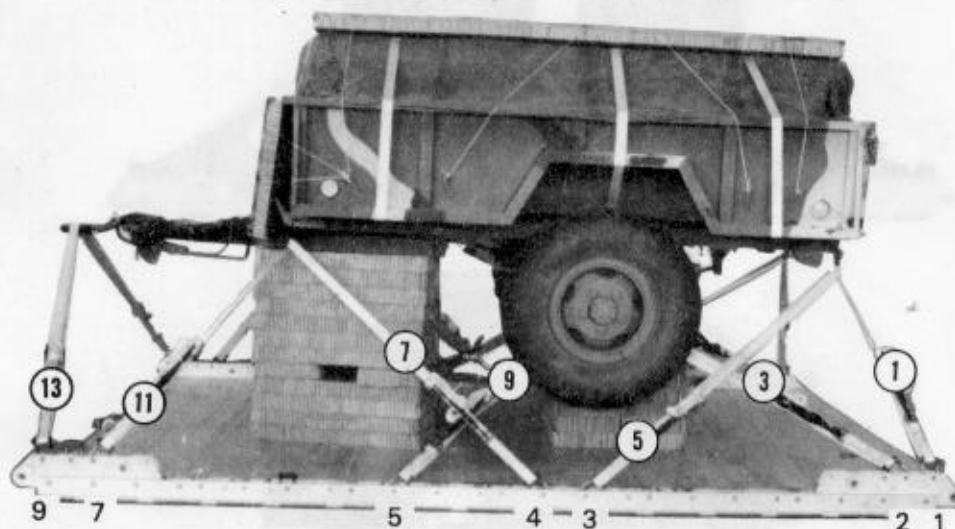


- ③ Set the trailer on the honeycomb with the frame support board on stack 3.
- ④ Set the axle on stack 2.
- ⑤ Set the drawbar on stack 3.
- ⑥ Remove the lifting slings (not shown).

*Figure 6-43. Trailer positioned (continued)*

**6-23. Lashing Trailer**

Lash the trailer to the platform using fourteen 15-foot tie-down assemblies according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-44.



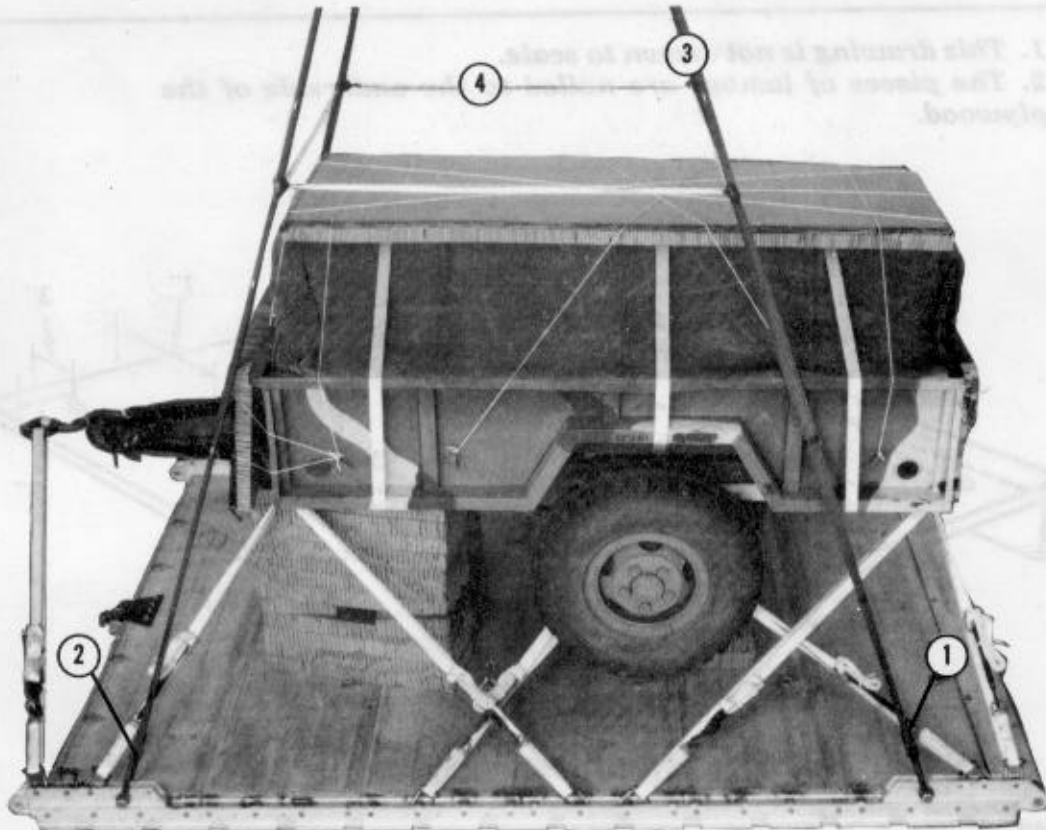
Lashing Number	Tie-down Clevis Number	Instructions
1	1	Pass lashing: Through the right rear lifting shackle.
2	1A	Through the left rear lifting shackle.
3	2	Around the right side of the axle.
4	2A	Around the left side of the axle.
5	3	Through the right rear lifting shackle.
6	3A	Through the left rear lifting shackle.
7	4	Through the right front lifting shackle.
8	4A	Through the left front lifting shackle.
9	5	Around the right side of the axle.
10	5A	Around the left side of the axle.
11	7	Through the right front lifting shackle.
12	7A	Through the left front lifting shackle.
13	9	Through the right side of the lunette.
14	9A	Through the left side of the lunette.

Figure 6-44. Trailer lashed to platform



### 6-24. Installing Suspension Slings

Use four large suspension clevises and four 16-foot (2-loop), type XXVI nylon webbing slings for suspension. Bolt and safety the slings to the trailer as shown in Figure 6-45.



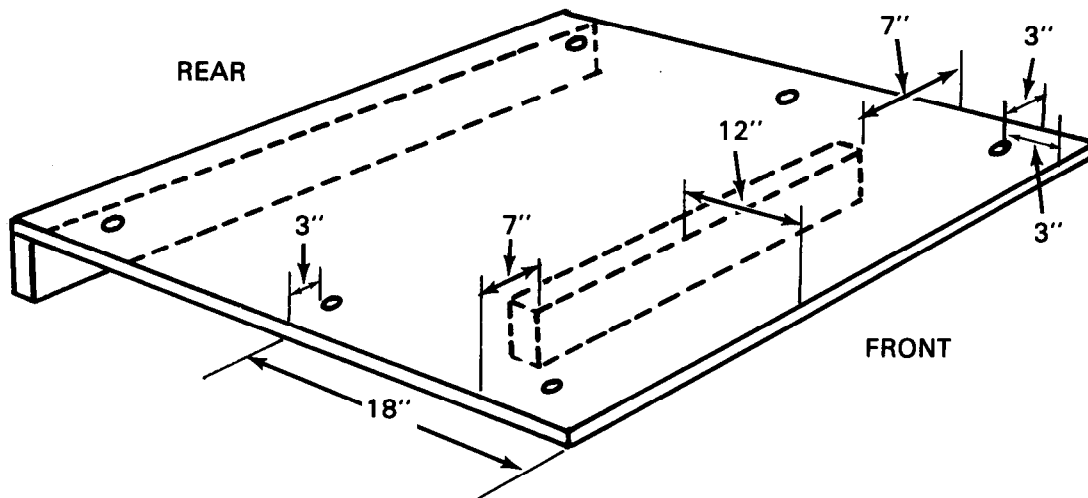
- ① Bolt a 16-foot (2-loop), type XXVI nylon webbing sling to each of the front tandem links with a large suspension clevis.
- ② Bolt a 16-foot (2-loop), type XXVI nylon webbing sling to each of the rear tandem links with a large suspension clevis.
- ③ Raise the suspension slings to their full length with a lifting provision.
- ④ Safety the suspension slings with a deadman's tie according to FM 10-500-2/TO 13C7-1-5.

Figure 6-45. Suspension slings installed

### 6-25. Building and Installing Cargo Parachute Stowage Platform

Build the parachute stowage platform using a 3/4- by 36- by 36-inch piece of plywood, a 2- by 4- by 36-inch piece of lumber, a 2- by 4- by 22-inch piece of lumber, and eightpenny nails as shown in Figure 6-46. Install the parachute stowage platform using four 15-foot tie-down assemblies and as shown in Figure 6-47.

- Notes: 1. *This drawing is not drawn to scale.*  
 2. *The pieces of lumber are nailed to the underside of the plywood.*

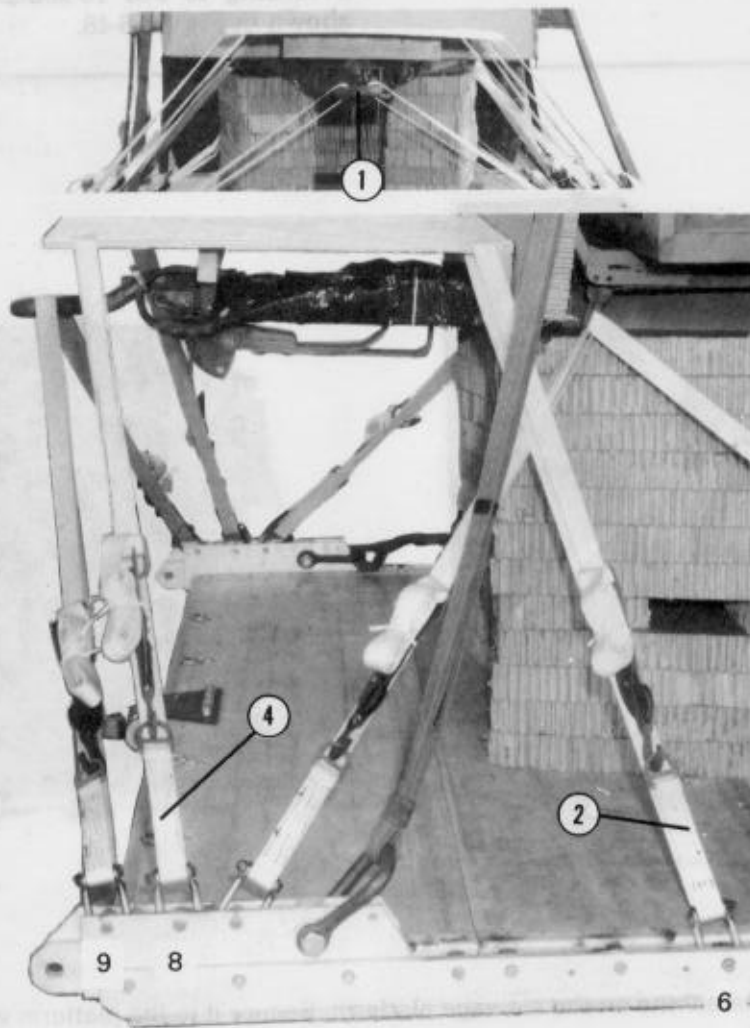


Step:

1. Drill a 2-inch-diameter hole 3 inches from each corner of the 3/4- by 36- by 36-inch plywood.
2. Drill a 2-inch-diameter hole centered 3 inches from the side of the plywood.
3. Place the 2- by 4- by 36-inch lumber on its 2-inch side. Place the lumber on the rear edge of the plywood. Use eightpenny nails to nail the lumber to the plywood.
4. Place the 2- by 4- by 22-inch lumber on its 2-inch side. Center the lumber 12 inches from the front edge of the plywood and 7 inches from each side. Use eightpenny nails to nail the lumber to the plywood.

Figure 6-46. Parachute stowage platform built

**Note:** Do not tighten the lashing so tight that the plywood bows.



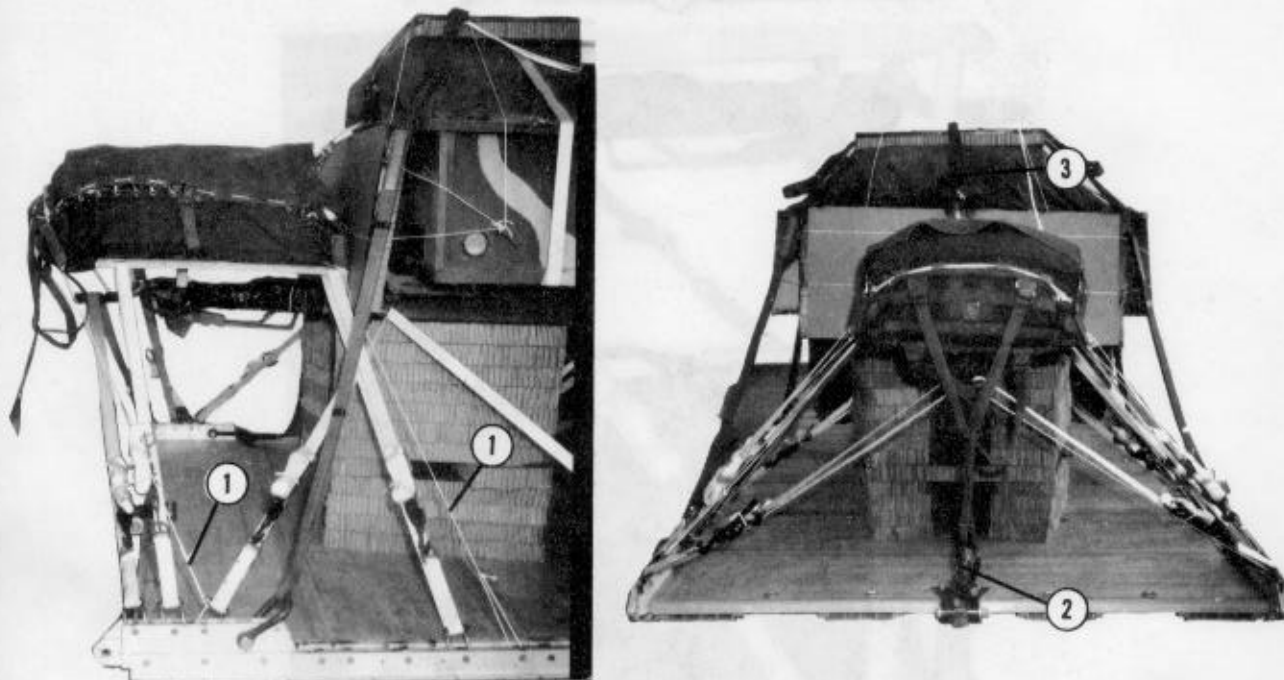
- ① Center the parachute stowage platform on the trailer drawbar.
- ② Pass a 15-foot lashing from clevis 6 up through the front hole in the parachute stowage platform. Secure the lashing with a D-ring and a load binder.
- ③ Repeat step 2 above for clevis 6A (not shown).
- ④ Pass a 15-foot lashing from clevis 8 up through the rear hole in the parachute stowage platform. Secure the lashing with a D-ring and a load binder.
- ⑤ Repeat step 4 above for clevis 8A (not shown).

*Figure 6-47. Parachute stowage tray installed*



### 6-26. Stowing Cargo Parachute

Stow one G-11A or one G-11B cargo parachute according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-48.

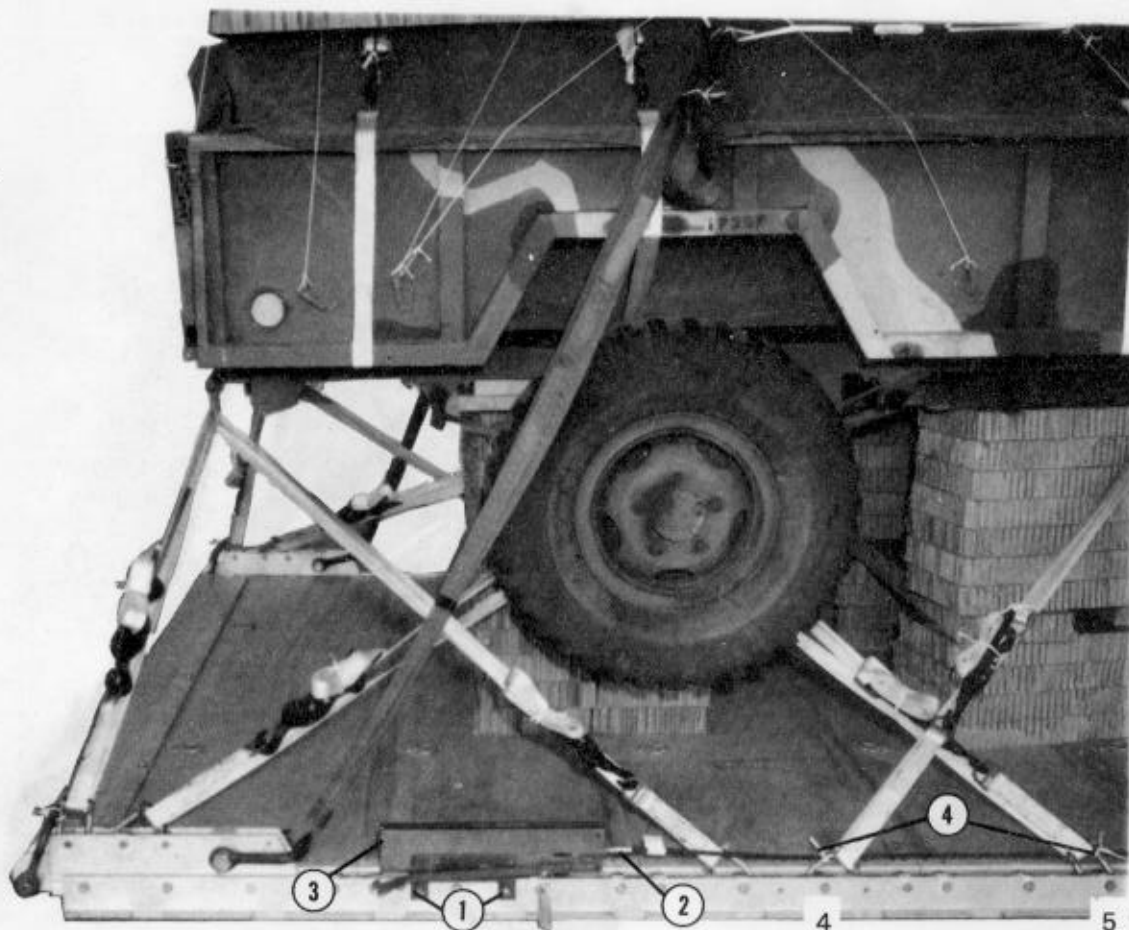


- ① Place the parachute on the stowage platform. Secure it to the platform with type III nylon cord.
- ② Attach a large clevis to the bridle of the parachute.
- ③ Attach a 3-foot (2-loop), type XXVI nylon webbing sling to the parachute attaching clevis.

Figure 6-48. Cargo parachute stowed

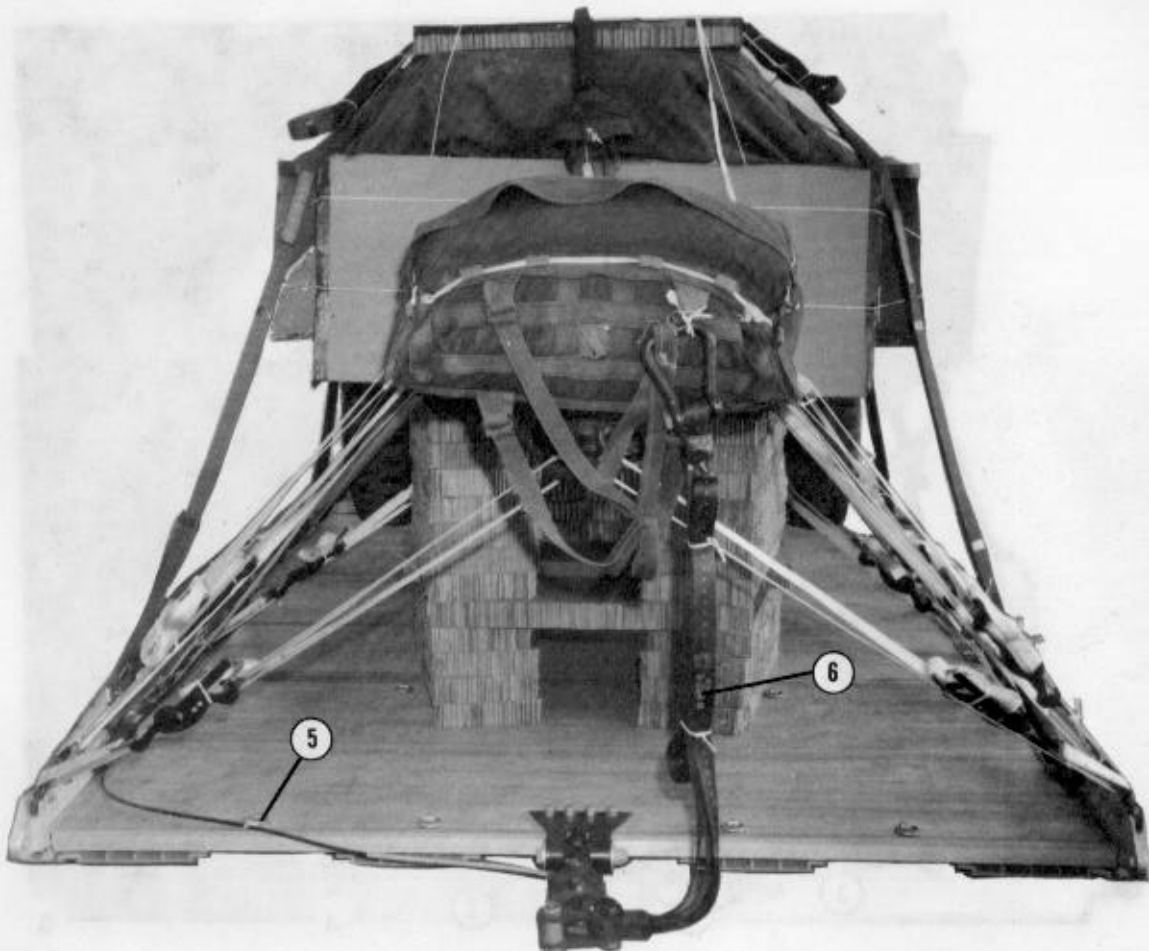
### 6-27. Installing Extraction System

Install the EFTC extraction system according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-49.



- ① Bolt the actuator bracket to the front EFTC mounting holes on the left platform side rail.
- ② Install a 12-foot cable to the actuator assembly.
- ③ Bolt the actuator assembly to the actuator mounting brackets.
- ④ Route the cable along the left rail to the rear of the platform. Tie the cable to clevises 4 and 5 with type I, 1/4-inch cotton webbing.

Figure 6-49. EFTC installed

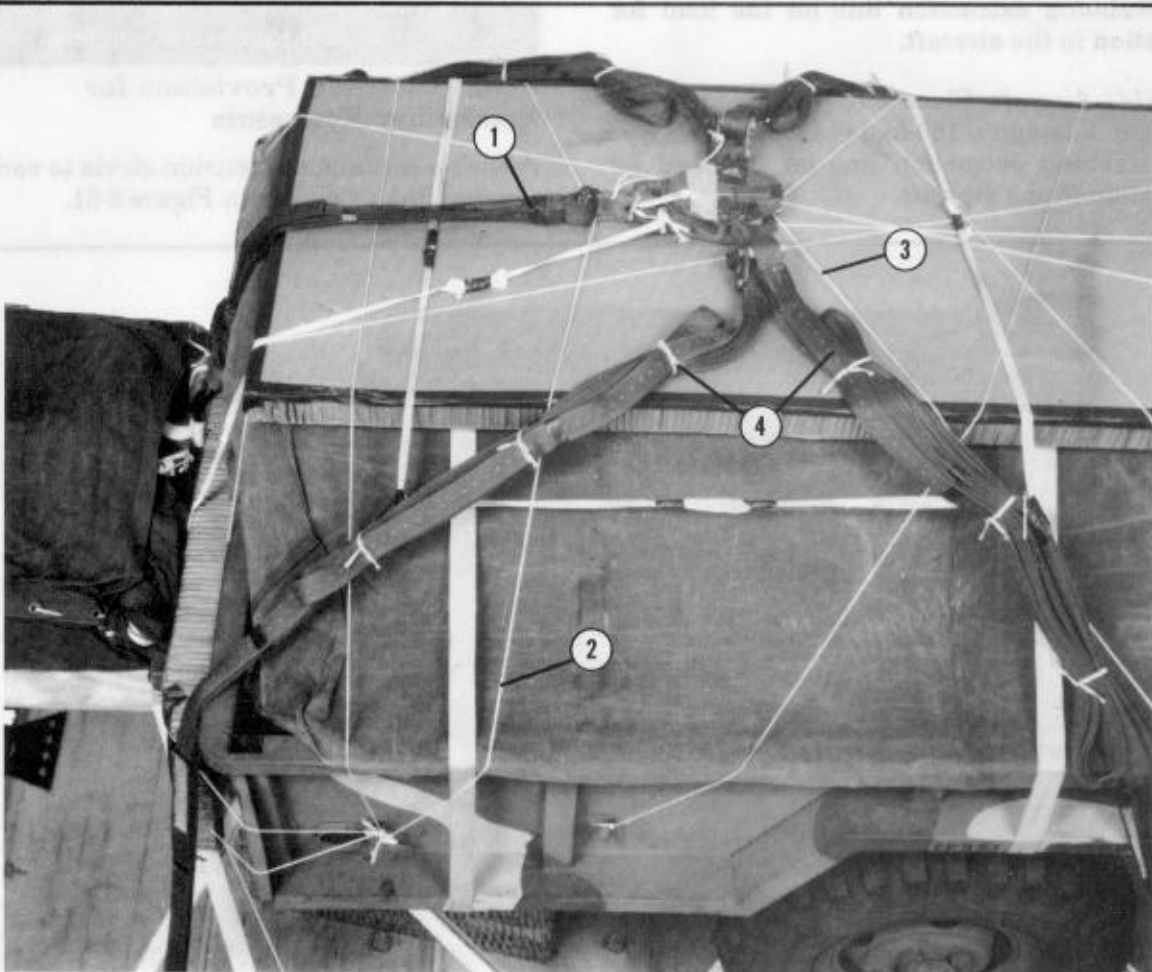


- ⑤ Tie the cable to tie-down ring D6 with type I, 1/4-inch cotton webbing. Bolt the latch assembly to the extraction link as shown in FM 10-500-2/TO 13C7-1-5.
- ⑥ Use a 9-foot (2-loop), type XXVI nylon webbing sling for the deployment line.

Figure 6-49. EFTC installed (continued)

### 6-28. Installing Parachute Release System

Prepare and install the M-1 release assembly according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-50.



- ① Attach the pre-positioned 3-foot sling to the M-1 release. Place the release on the honeycomb.
- ② Secure the release to the tarpaulin tie-downs at the front of the trailer with type III nylon cord.
- ③ Secure the release to the tarpaulin tie-downs at the rear of the trailer with type III nylon cord.
- ④ Attach the 16-foot (3-loop), type X or (2-loop), type XXVI nylon webbing suspension slings to the release. S-fold and tie the slings in place with type I, 1/4-inch cotton webbing as outlined in FM 10-500-2/TO 13C7-1-5.

Figure 6-50. M-1 cargo parachute release installed

### 6-29. Placing Extraction Parachute

Place the extraction parachute as described below.

a. *C-130 Aircraft.* Place a 15-foot cargo extraction parachute and a 60-foot (1-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

b. *C-141 Aircraft.* Place a 15-foot cargo extraction parachute and a 160-foot (1-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

#### CAUTION

The extraction line will be a continuous 160-foot (1-loop), type XXVI nylon webbing extraction line. Shorter lines will not be used to form the 160-foot extraction line.

### 6-30. Installing Provisions for Emergency Restraints

Attach a medium suspension clevis to each front tandem link as shown in Figure 6-51.



Figure 6-51. Provisions for emergency restraints installed



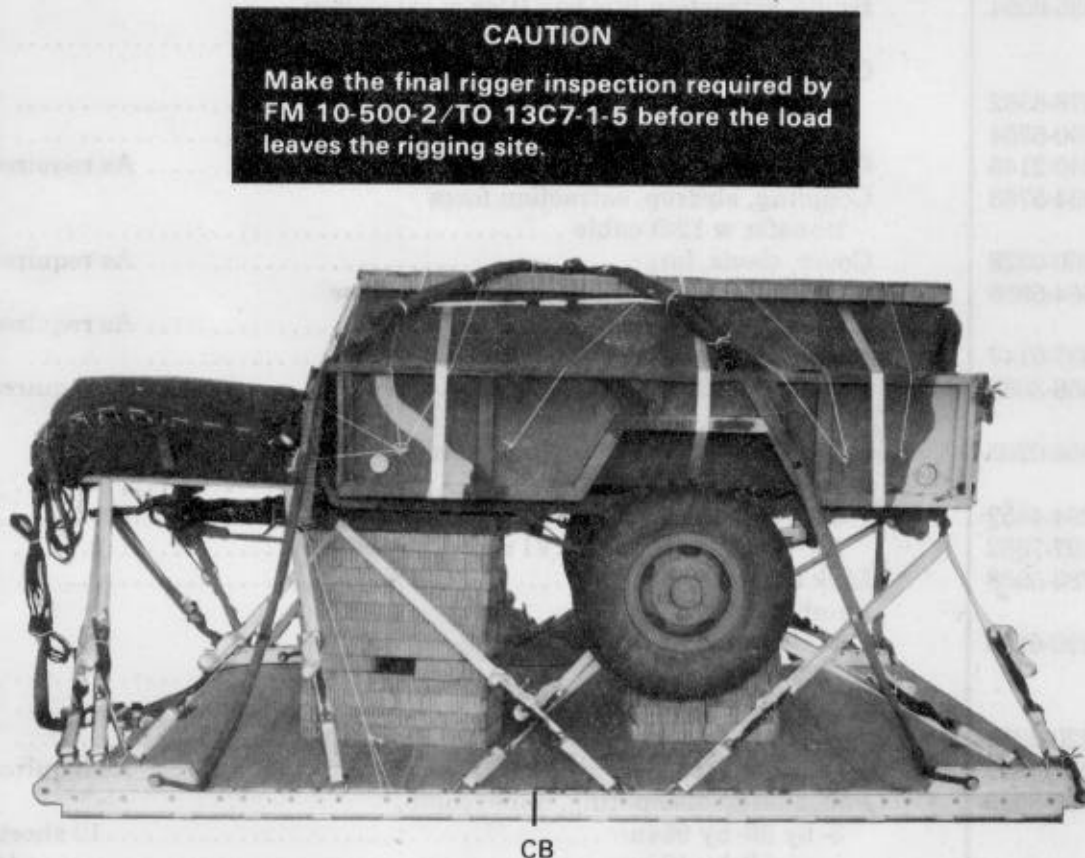
### 6-31. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-52. Complete DD Form 1387-2, and securely attach it to the load. Indicate on DD Form 1387-2 that the fire extinguishers are on the load and have been prepared according to AFR 71-4/TM 38-250. If the

load varies from the one shown in Figure 6-52, the height, weight, and CB must be recomputed.

### 6-32. Equipment Required

Use the equipment listed in Table 6-4 to rig this load.



#### RIGGED LOAD DATA

Weight:	Load shown .....	4,050 pounds
	Maximum load allowed: G-11A .....	4,250 pounds
	G-11B .....	5,000 pounds
Height .....		83 inches
Width .....		108 inches
Length .....		167 inches
Overhang: Front .....		4 1/2 inches
Rear .....		18 inches
CB (from front edge of platform) .....		72 1/2 inches
Extraction System .....		EFTC

Figure 6-52. FARE rigged in an M101A1, 3/4-ton trailer for low-velocity airdrop on a type V platform

**Table 6-4. Equipment required for rigging FARE in an M101A1, 3/4-ton trailer for low-velocity airdrop on a type V platform**

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gal .....	As required
3990-00-937-0272	Binder, load, 10,000-lb .....	6
1670-00-035-6054	Bridle, extraction line bag (Use w extraction line leaf.) .....	1
	Clevis, suspension:	
4030-00-678-8562	3/4-in (medium) .....	2
4030-00-090-5354	1-in (large) .....	4
4020-00-240-2146	Cord, nylon, type III, 550-lb .....	As required
1670-00-434-5783	Coupling, airdrop, extraction force transfer w 12-ft cable .....	1
1670-00-360-0328	Cover, clevis, large .....	As required
8135-00-664-6958	Cushioning material, packaging, cellulose wadding .....	As required
5365-00-937-0147	D-ring, heavy-duty, 10,000-lb .....	2
8305-00-958-3685	Felt, 1/2-in thick .....	As required
	Line, extraction:	
1670-00-856-0265	60-ft (1-loop), type X nylon webbing (Use w 15-ft parachute.) or .....	1
1670-01-064-4452	60-ft (1-loop), type XXVI nylon webbing .....	1
1670-01-107-7652	160-ft (1-loop), type XXVI nylon webbing .....	1
1670-00-783-5988	Link assembly, type IV .....	1
	Lumber:	
5510-00-220-6146	2- by 4-in:	
	22-in .....	1
	36-in .....	1
5510-00-220-6250	2- by 12- by 46-in .....	2
5315-00-010-4659	Nail, steel wire, common, 8d .....	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb,	
	3- by 36- by 96-in: .....	10 sheets
	12- by 12-in .....	(4)
	12- by 32-in .....	(22)
	18- by 30-in .....	(10)
	18- by 36-in .....	(1)
	24- by 36-in .....	(1)
	24- by 60-in .....	(1)
	36- by 12-in .....	(20)
	36- by 96-in .....	(2)
	48- by 12-in .....	(1)

**Table 6-4. Equipment required for rigging FARE in an M101A1, 3/4-ton trailer for low-velocity airdrop on a type V platform (continued)**

National Stock Number	Item	Quantity
	Parachute:	
	Cargo:	
1670-00-269-1107	G-11A .....	1
1670-01-016-7841	G-11B .....	1
	Cargo extraction:	
1670-00-052-1548	15-ft <u>or</u> .....	1
1670-01-063-3715	15-ft .....	1
	Platform, AD, type V, 12-ft: .....	1
	Bracket:	
1670-01-162-2375	Inside EFTA .....	(1)
1670-01-162-2374	Outside EFTA .....	(1)
1670-01-162-2372	Clevis assembly .....	(18)
1670-01-162-2376	Extraction bracket assembly .....	(1)
1670-01-162-2381	Tandem link .....	(4)
5530-00-128-4981	Plywood, 3/4- by 36- by 36-in .....	1
1670-01-097-8816	Release, cargo parachute, M-1 .....	1
	Sling, cargo airdrop:	
	For deployment line:	
1670-00-753-3631	9-ft (3-loop), type X nylon webbing <u>or</u> .....	1
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing .....	1
	For lifting:	
1670-00-823-5040	11-ft (3-loop), type X nylon webbing <u>or</u> .....	2
1670-01-063-7760	11-ft (2-loop), type XXVI nylon webbing .....	2
1670-00-823-5041	12-ft (3-loop), type X nylon webbing <u>or</u> .....	1
1670-01-062-6303	12-ft (2-loop), type XXVI nylon webbing .....	1
	For riser extensions:	
1670-00-753-3788	3-ft (3-loop), type X nylon webbing <u>or</u> .....	1
1670-01-062-6301	3-ft (2-loop), type XXVI nylon webbing .....	1
	For suspension:	
1670-00-823-5042	16-ft (3-loop), type X nylon webbing <u>or</u> .....	4
1670-01-063-7761	16-ft (2-loop), type XXVI nylon webbing .....	4
8125-00-074-5124	Tape, adhesive, cloth-backed, type IV, 2-in .....	As required
1670-00-937-0271	Tie-down assembly, 15-ft .....	23
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I .....	As required
	Nylon, tubular:	
8305-00-082-5752	1/2-in <u>or</u> .....	As required
8305-00-268-2453	1/2-in .....	As required